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### (54) FLEXIBLE SCREEN BACKED WITH RIGID RIBS

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(52) U.S. Cl.

CPC ... B32B 3/14 (2013.01); B32B 3/28 (2013.01); G06F 1/1624 (2013.01); G06F 1/1652 (2013.01); G06F 1/1679 (2013.01); G09F 9/301 (2013.01); G09F 9/3023 (2013.01); G02F 1/133305 (2013.01); G06F 1/1616 (2013.01); G06F 1/1641 (2013.01); G06F 1/1681 (2013.01); G09F 9/30 (2013.01); G09F 9/35 (2013.01); G09F 11/29 (2013.01); H04M 1/0216 (2013.01); H04M 1/0268 (2013.01); Y10S 345/905 (2013.01); Y10T 428/24628 (2015.01); Y10T 428/24802 (2015.01)

#### (58) Field of Classification Search

None

See application file for complete search history.

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#### (57) ABSTRACT

A device is disclosed that includes one or more ribs that allow a flexible device, such as an OLED display, to flex in a first direction but resist flexing in a second direction. The ribs may have stiffening elements attached to them that may lessen flexing in the first direction. Sensors may also be incorporated that signal the stiffening elements. The ribs and stiffening elements have application to a variety of display types such as cell phones, TVs, and movie screens.

#### 30 Claims, 15 Drawing Sheets

